

Mode	Recorder	Date	Authority/Reference	Details/Parameter
Aviation	Flight Data Recorder (FDR)	Early 1940's	CAB Regulation [1]	Call for flight recording device, but later rescinded
		July 1, 1958	CAA Regulation [1]	Analog FDR to record 5 parameters: time, altitude, airspeed, vertical accelerations, and heading
		Dec. 10, 1972	FAA Regulation 14 CFR 121.343	Digital FDR (DFDR) required on transports (≥20 passengers) certified after 1969 to record minimum 17 parameters
		Sep. 12, 1997	FAA Regulation 14 CFR 121.344	Transports built after Aug. 8, 2002 required to record minimum 88 parameters
	Cockpit Voice Recorder (CVR)	Prior 1960	CAB Recommendation [1]	Recommend that flight crew conversation be recorded
		Jan. 1, 1967	FAA Regulation 14 CFR 121.359	Airplanes required to carry CVR capable of recording last 30 minutes of conversations
		Mar. 9, 1999	NTSB Recommendation A-99-17 to FAA	Require 2 (1 fore/1 aft) solid state CVR/DFDR with independent power supply after Jan. 1, 2003
Marine	Voyage Data Recorder (VDR)	Mar. 2, 1976	NTSB Recommendation M-76-8 to US Coast Guard	Require the installation of an automatic recording device to preserve vital navigational information aboard oceangoing ships
		July 17, 1995	NTSB Recommendation M-95-6 to US Coast Guard	Propose to IMO that it require all vessels over 500 gross tons be equipped with VDR
		Nov. 27, 1997	IMO Resolution A.861 (20)	Performance standards established for 14 data items, including: date and time, position, speed, heading, radar data, wind speed and direction, bridge and communications audio, etc.
		Dec. 6, 2000	SOLAS Chapter V, Regulation 20	Passenger ships constructed after July 1, 2002 to carry VDRs capable of recording minimum 12 hours of data identified in performance standards
Railway	Locomotive Event Recorder (LER)	May 26, 1995	FRA Regulation 49 CFR 229.5 and 135	Lead locomotive of any train operated over 30 mph to record speed, direction, time, distance, throttle, brake application and operations, as well as cab signals over last 48 hours
		Aug. 28, 1997	NTSB Recommendation R-97-9 to FRA	Require the recording of crew's voice communications for exclusive use in accident investigations and with appropriate limitations on public release of recordings.
Highway	On-Board Recorder (OBR)	Sep. 30, 1988	FHWA Regulation 49 CFR 395.15	Hours-of-Service rules for commercial vehicle drivers allow use of OBR to record duty status, distance and hours driven

Highway	On-Board Recorder (OBR)	Feb. 5, 1990	NTSB Recommendation H-90-28 to FHWA	Require automated/tamper-proof on-board recording devices, such as tachographs or computerized logs
		Aug. 5, 1998	NTSB Recommendation H-98-23 to Truck Groups	Advise members to equip fleets with automated and tamper proof on-board recording devices
	Event Data Recorder (EDR)	July 1, 1997	NTSB Recommendations H-97-18 to NHTSA and H-97-21 to Automakers	Develop and implement a plan to gather better information on crash pulses & other crash parameters in actual crashes, utilizing current or augmented crash sensing and recording data
		Nov. 2, 1999	NTSB Recommendations H-99-53 and H-99-54 To NHTSA	Require school buses & motor coaches built after Jan. 1, 2003 to record minimum 17 parameters and to develop and implement standards for the recording of crash data.

CAA - Civil Aviation Authority
 CAB - Civil Aeronautics Board
 CFR - Code of Federal Regulations
 FAA - Federal Aviation Administration
 FHWA - Federal Highway Administration
 FRA - Federal Railroad Administration
 IMO - International Marine Organization
 NHTSA - National Highway Traffic Safety Administration
 NTSB - National Transportation Safety Board
 SOLAS - International Convention for Safety of Life at Sea

Table 1 – Condensed Summary of Activity on EDRs by Mode of Transportation

SOURCE: Correia, J.T.; Iliadis, K. A.; McCarron, E.S.; Smolejj, M. A. Utilizing Data From Automotive Event Data Recorders. Hastings, Boulding, Correia Consulting Engineers. June, 2001. 16 pgs. Table Condensed from the Proceedings of the Canadian Multidisciplinary Road Safety Conference XII; June 10-13, 2001; London, Ontario. Actes de la XIIe Conference Canadienne Multidisciplinaire en Securite Routiere; 10-13 Juin 2001; London, Ontario